Project Descriptions for July 10, 2019

Board of Trustees Meeting

Clean Water Commitments

Bourne CW-19-07
The project involves construction of a new 100,000 gpd package wastewater treatment facility with subsurface discharge on town-owned land. The plant is designed using MBR technology. A Groundwater Discharge Permit has been approved for the plant and discharge. Based on detailed site testing and groundwater modeling, treated effluent will move towards the Cape Cod Canal. Added capacity is needed to handle flows above the 200,000 gpd capacity owned by Bourne in the Wareham WWTF. That plant, where no added capacity is available for Bourne's use, discharges to the Agawam River. Existing sewer flows from a portion of Bourne's sewered area will be intercepted and re-directed to the new treatment plant, redirecting treated effluent away from the Agawam River.

Fall River CW-18-38
The City of Fall River's WWTF is aging and requires rehabilitation/upgrade to maintain reliable operation and performance. Additionally, EPA has indicated its intent to include a nitrogen limit in the City's next NPDES permit. Mt. Hope Bay is listed as impaired; Fall River's wet weather discharges and operational SSOs contribute to its impairment. Recent air quality regulations (Title V) necessitated shut down of the WWTF incinerator. Liquid sludge is trucked off site for disposal, dramatically increasing disposal costs. Administrative facilities are ineffective and undersized for current needs. Site electrical and security issues will also be addressed.

Norton CW-18-43
This project involves providing new sanitary sewers to reduce pollution caused from the failed and malfunctioning private onsite sewage disposal systems, and more specifically the already failed systems at the Woodland Meadows Elderly Housing development. The new system will also provide the ability to connect the High School and the Yelle School to the sewer and bring the sewer closer to the Middle School for future connection and decommissioning of their WWTF, which is currently experiencing problems meeting Groundwater Discharge Permit requirements. This project will connect the properties to the MFN Regional WWTF. Failures of these onsite systems directly affects the quality of groundwater and surface water in the project area.

Upper Blackstone WPAD CW-16-39
The UBWPAD is currently under Administrative Order on Consent (AOC) with the EPA to come into compliance with the 2012 permit limits for total nitrogen and total phosphorus. The construction project would upgrade the treatment facility in order to meet these nutrient limits including the construction of a tertiary phosphorus removal system, secondary system improvements, sludge handling and chemical system improvements as well as numerous ancillary systems and site improvements.

Drinking Water Commitments

Dunstable DW-19-05
The project involves the construction of a new 75,000-gallon elevated steel storage tank and approximately 1,800 LF of associated water main replacement to improve system hydraulics. To optimize the existing chemical feed for pH control, the project also includes various well station improvements at the Dunstable well field site along with minor access road improvements. The water infrastructure upgrades proposed in this project are needed to meet the requirements of an Administrative Consent Order with Penalty (ACOP) that was issued by MassDEP in May 2018 (ACOP-CE-18-5D00004407).

Southampton DW-18-12
Southampton (PWS # 1276000) needs a backup water source as identified on page 9 of MassDEP's January 14, 2015 Sanitary Survey Report ("Findings, Section 5, Water Quantity") . Southampton presently has only on active water source, the Glendale Well # 02 G. This project provides the required backup water source by constructing a Booster Pump Station in Southampton, near the Southampton -Easthampton Town line, to convey water from the Easthampton PWS to and throughout the Southampton PWS water system. It also includes rehabilitation of Southampton's Glendale Well field to regain its approved pumping capacity, and piping and controls to connect the Booster Pump Station in the best manner to the Southampton distribution system.

Clean Water Agreements

Fall River CWP-18-36
The purpose of this project is to fully replace a 1400 gpm sewer pump station that serves a population equivalent of 4,500. Constructed in the 1960's, the pump station is beyond its useful life. Existing piping, pumps, electrical equipment, instrumentation and standby power system are severely corroded due to age. The pump station is unable the consistently handle wet weather flows, resulting in SSO’s. A new submersible pump station will be constructed with additional capacity, standby power generator, motor controls and SCADA system. Operation of the new pump station will not require confined space entry. Force main isolation valves, bypass connection and flow meter will give the City flexibility in emergency operations and SSO control.

Fall River CWP-18-38
The City of Fall River's WWTF is aging and requires rehabilitation/upgrade to maintain reliable operation and performance. Additionally, EPA has indicated its intent to include a nitrogen limit in the City's next NPDES permit. Mt. Hope Bay is listed as impaired; Fall River's wet weather discharges and operational SSOs contribute to its impairment. Recent air quality regulations (Title V) necessitated shut down of the WWTF incinerator. Liquid sludge is trucked off site for disposal, dramatically increasing disposal costs. Administrative facilities are ineffective and undersized for current needs. Site electrical and security issues will also be addressed.

Fall River CW-18-44
The area known as Stafford Square in the city of Fall River has historically been subject to severe urban flooding. Inadequate storm drains and combined sewers are known to cause SSOs, impair water quality, and risk the public health and safety. This project will consist of an integrated stormwater and wastewater collection system evaluation for the Stafford Square watershed. The proposed planning study will advance the current resolution concepts identified in the City's Wastewater and Stormwater Integrated Plan to and provide a listing of phased capital improvements to help mitigate chronic flooding and SSOs, while maximizing use of existing infrastructure systems.

Fall River CW-18-45
The purpose of the proposed planning project is to implement a comprehensive asset management system for the City of Fall River Department of Community Utilities. The project will include a review of the existing asset management systems, planning workshops with City personnel, asset management software selection and implementation, and asset inventory and condition assessment. The proposed comprehensive asset management system will include all vertical and horizontal water, wastewater, and stormwater assets, and track all operations and maintenance activities.

Harwich CWP-18-23
The Town of Harwich will be implementing Phase 2 of their Comprehensive Wastewater Management Plan and will be installing a sewer collection system in the Pleasant Bay Watershed. After a 400% population increase since 1951, the Town has seen water quality issues due to septic systems releasing nutrients which infiltrate into the ground and over fertilize water bodies, resulting in degraded water quality. Wastewater collected in Pleasant Bay in Harwich will be treated at the existing Chatham Water Pollution Control Facility. The Towns of Harwich and Chatham have signed an inter-municipal agreement to work together to meet their shared goals of the Pleasant Bay TMDL and to protect their resources, which include drinking water supply wells.

Hull CW-18-22
The SSES project includes flow isolation, CCTV, MH inspection, smoke and building inspection in project area that consists of approximately 165,000 linear feet of sanitary sewer ranging in size from 8" to 36" and approximately 1,000 manholes. Hull experiences high levels of I/I, with recent estimates totaling in the range of up to 30% of wastewater flow seen at the WWTF. The study will also evaluate underground piping at the WWTF. The study will also inspect the physical and hydraulic conditions of the 24" Outfall that extends approximately 2,700 ' feet out into Massachusetts Bay.

Hull CWP-18-29
Hull is completing a CMOM, under AOC (Docket CWA-01-AO-16-09), which identified a number of upgrades that are in order. In addition, the Town completed a Fiscal Sustainability Plan (FSP) in June 2017, which prioritized facility/wastewater system upgrades. This project addresses the Year One Upgrades that includes three construction contracts. These Year One contracts were deemed an extreme risk to the system and a priority for immediate attention due to age, historic failure histories, impacts to the wastewater operations and cost benefit analyses of repair/replacement. The construction project includes Contract No. 1 Sewer Interceptor Pipeline Renewal, Contract No. 2 Atlantic Avenue/Gunrock Area Sewer Infrastructure Renewal, and Contract No. 3 Critical Replacements at POTW contracts.

Norton CWP-18-43
This project involves providing new sanitary sewers to reduce pollution caused from the failed and malfunctioning private onsite sewage disposal systems, and more specifically the already failed systems at the Woodland Meadows Elderly Housing development. The new system will also provide the ability to connect the High School and the Yelle School to the sewer and bring the sewer closer to the Middle School for future connection and decommissioning of their WWTF, which is currently experiencing problems meeting Groundwater Discharge Permit requirements. This project will connect the properties to the MFN Regional WWTF. Failures of these onsite systems directly affects the quality of groundwater and surface water in the project area.

Revere CWP-18-28
The Phase IX Construction Project will include the removal of inflow/infiltration (I/I) from the City's sewer system. Construction will include the redirection of public and private inflow sources discovered during the Phase IX Field Investigations, IDDE source removal, and drainage improvements. Construction will also include pump station improvements (both stormwater and wastewater), CIPP lining, sewer spot repairs, replacements, new sewer lines, cleaning, and additional wastewater metering.

Springfield Water and Sewer Commission CWP 18-18
Consistent with the Commission's Integrated Wastewater Plan, the York Street Pump Station and Connecticut River Crossing Project will increase the wet weather flow to the Springfield Regional Wastewater Treatment Facility (SRWTF), substantially reducing the volume and frequency of combined sewer overflow events from multiple CSO regulators across the Connecticut River CSO system. The Project includes a new 62 MGD wastewater pumping station and screening facility, 3 new pipes crossing under the Connecticut River to the SRWTF, and modification to the SRWTF Influent Structure.

Springfield Water and Sewer Commission CWP 18-18-A
Consistent with the Commission's Integrated Wastewater Plan, the York Street Pump Station and Connecticut River Crossing Project will increase the wet weather flow to the Springfield Regional Wastewater Treatment Facility (SRWTF), substantially reducing the volume and frequency of combined sewer overflow events from multiple CSO regulators across the Connecticut River CSO system. The Project includes a new 62 MGD wastewater pumping station and screening facility, 3 new pipes crossing under the Connecticut River to the SRWTF, and modification to the SRWTF Influent Structure.

Upper Blackstone WPAD CWP-16-39-B
The UBWPAD is currently under Administrative Order on Consent (AOC) with the EPA to come into compliance with the 2012 permit limits for total nitrogen and total phosphorus. The construction project would upgrade the treatment facility in order to meet these nutrient limits including the construction of a tertiary phosphorus removal system, secondary system improvements, sludge handling and chemical system improvements as well as numerous ancillary systems and site improvements.

Drinking Water Agreements

Barnstable DWP-18-10
Maher Water Treatment Facility Upgrade to mitigate chemical contamination of PFOS, 1,4 Dioxane and any other CEC that maybe found in Hyannis Supply System.

Fall River DWP-18-15
This project is the city of Fall River's eighteenth year of its annual cast iron water main and lead service replacement program. The Phase 18 water main improvements include the rehabilitation or replacement of approximately 5,730 linear feet of cast iron water mains and lead services. A Project Location Map is included in Appendix A. The narrative highlights the issues resolved by the project, its goal of preventing a serious problem in the distribution system, and its importance to providing safe and reliable drinking water to customers of the City of Fall River.

Haverhill DWP-18-06
This project involves replacement of approximately 14,150 linear feet of water mains and associated lead service lines and installing valves for isolation. This project is necessary to provide redundancy, isolation control, and fire flow. The improvements will allow the City to continue to supply water and fire protection to the entire distribution system in the event of a break in either the 20-inch mains from the Gale Hill Storage Tank to the downtown area. This project continues the work currently being conducted under Phase I of water main improvements currently being constructed under DWSRF No. 4045.

Revere DWP-18-09
The Oak Island neighborhood of Revere has shown significant deficiencies including low pressure, water main breaks, and a lack of redundancy. The aging 6-inch unlined cast iron water main that is the sole source of water to this neighborhood runs under the MBTA railroad tracks, making it susceptible to failure due to its age and exposure to vibration from the trains. The hydrant flow tests conducted in this neighborhood produced results of 175 gpm with the residual pressure dropping to 5 psi, which is well below the MassDEP and ISO standards. Additionally, a similar neighborhood in the city of Revere recently experienced a 4-alarm fire, where water system issues affected the ability to fight the fire.

Southampton DWP-18-12
Southampton (PWS # 1276000) needs a backup water source as identified on page 9 of MassDEP's January 14, 2015 Sanitary Survey Report ("Findings, Section 5, Water Quantity"). Southampton presently has only on active water source, the Glendale Well # 02 G. This project provides the required backup water source by constructing a Booster Pump Station in Southampton, near the Southampton -Easthampton Town line, to convey water from the Easthampton PWS to and throughout the Southampton PWS water system. It also includes rehabilitation of Southampton's Glendale Well field to regain its approved pumping capacity, and piping and controls to connect the Booster Pump Station in the best manner to the Southampton distribution system.

Taunton DWP-18-07
The project consists of removing lead goosenecks and installing new ductile iron water mains. City records indicate no known lead service connections, but lead goosenecks were used for connections from the water main to service connections in the early part of the 20th Century. Lead goosenecks could leach lead into the water, so replacing them will lower potential lead exposure and protect public health. The water mains to which the lead goosenecks are connected also will be replaced. They are old, unlined cast iron pipes with substantial tuberculation, which can cause dirty water and reduce the hydraulic capacity. These upgrades will improve water quality and increase the available fire flow.